

III.—*A few remarks upon a species of Zoophyte which has been discovered in the New Docks of Ipswich.* By Mr. EDWIN GILES and Dr. W. B. CLARKE.

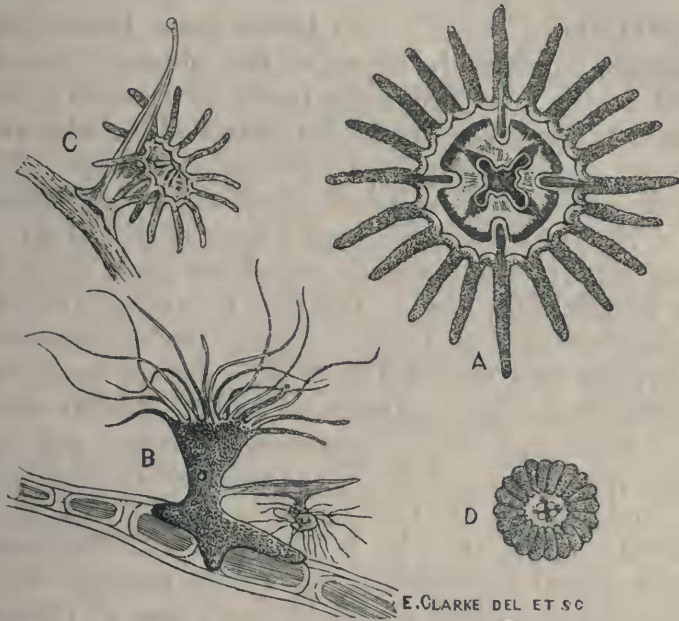
*To the Editors of the Annals of Natural History.*

GENTLEMEN,

14 Berners Street, Ipswich, Suffolk.

THE Zoophyte which is the object of the following remarks was discovered in the New Salt-water Docks of Ipswich in Suffolk, and brought under my notice by Mr. Edwin Giles, who was then in possession of several fine and vigorous specimens. The animal appears white, or of a delicate flesh-colour and semitransparent; of an obconical form; from a quarter to half an inch in length, exclusive of the tentacula, which are about three or four times the length of the body. The base is furnished with a more or less extensive disc for attachment; the tentaculiferous extremity is circular and provided with from sixteen to twenty-one long tentacles and a subquadrangular central aperture or mouth, capable of rapid and very considerable expansion and contraction. The circumference of the disc is bordered by an apparently roundish and slightly thickened margin from which the tentacula proceed; whilst the disc is furnished with four subovate bodies, each placed diametrically opposite to another having an orifice-like appearance and extending to the base of the tentacle which is nearest to it: these bodies are also coincident each with one of the sub-bifid lobes of the mouth, as seen in the woodcut. These animals are extremely interesting from the elegance of their form and the rapidity and peculiarity of their movements. We had an opportunity of observing them whilst busily engaged in securing their prey, probably consisting of infusorial animals, which however were so small that we could not ascertain what had passed within their influence; but we repeatedly observed a tentaculum rapidly contracted curved upon itself, and the extremity introduced into the mouth, as in fig. E, which had suddenly been expanded into its quadrangular form for its reception, and as suddenly contracted, so that the four bifid lips grasped the introduced feeler, which remained a few seconds within the stomach, and was then gradually withdrawn and again extended to secure another victim. Not only was the extremity of the tentacle occasionally introduced; but when the creature had secured an object by some of the lower discs, with which the whole extent of its surface appeared to be furnished, the feeler was doubled upon itself, as seen on the opposite side of fig. E, the mouth suddenly and widely expanded, and the reduplication introduced into it, when it again closed upon the tentaculum, and, as in the first instance, it remained a few seconds in the stomach and was then gradually withdrawn again: in these movements the mouth so closely grasped the tentacle that it ap-

peared to strip off every extraneous body that might be adhering to it. The above evolutions were continually exhibited whilst we had it under observation, and in some instances two tentacles were introduced into the mouth at the same time.



E. CLARKE DEL ET SC

The figs. A. B. C. D. have been engraved on wood by Dr. Edward Clarke, who very kindly offered his services in illustration of this paper. They are taken from some beautiful little drawings made by Mr. Edwin Giles of this zoophyte whilst living in his possession.

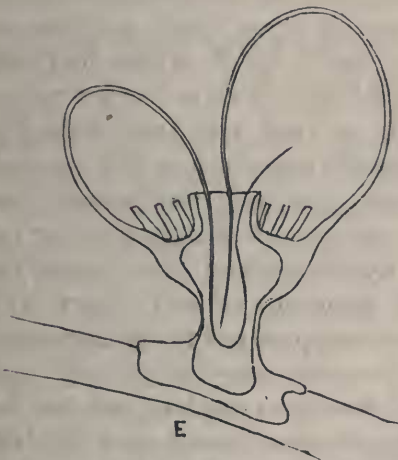
A. represents a considerably magnified view of the tentaculiferous disc with the tentacles contracted.

B. is a side view, showing the spur-like gemmation with the young polype proceeding from it.

C. is a side view of another specimen showing the pistil-like gemmation and destitute of the polype.

D. is a front or upper view of the zoophyte as it appeared when in its dying state: the tentacles were all incurved, and particles floating over the disc, when in this condition, were observed to have a rotatory motion communicated to them.

E. is a fig. also engraved by Dr. Edward Clarke, and taken from a little diagram showing the position of the tentacles when introduced into the animal's mouth.



Subjoined is a note from Mr. Edwin Giles upon this beautiful little animal.

Believe me to remain, &c.,

W. B. CLARKE, M.D.

DEAR SIR,

Tavern Street, Ipswich, Suffolk.

We have in our Wet Salt-water Dock a species of Hydroid Polype which I have not met with in any publication that I have had an opportunity of referring to. It differs materially from the common species of our freshwater ponds in its body being less capable of extension, and in its having when mature from sixteen to twenty-one extensile tentacles around its disc, in the centre of which, and rising considerably above the surface, when protruded, is a singularly and beautifully organized four-lobed mouth: the instant adaptation of its opening to the incurving tentacles, and its effective closing thereon when they are introduced into the cavity, are operations of the most interesting character. Around the base of the mouth, and equidistant from each other, are four oviform orifices, corresponding with the four projecting lobes of the mouth and extending to the base of the nearest tentacle, giving to the disc somewhat the appearance of a flower with a four-cleft corolla.

The incipient gemmation of this polype is spurlike and acute, upon which the young polype is formed: in some instances this spur or offshoot terminates in a little bulb, presenting the appearance of a simple pistil of a plant having its stigma at the extremity and the germen at its base: upon offshoots of this latter form we have not at present noticed any young.

I observed, previous to the death of this little creature, that the tentacles became incurved, and, at such times, substances floating over the orifice of the disc obtained a rotatory motion as if operated upon by cilia.

Believe me to remain, &amp;c.,

EDWIN GILES.

IV.—On *Odontites rubra*, Pers., and the allied forms, including a notice of a new species. By JOHN BALL, M.R.I.A.

THIS attempt to clear up the confusion which seems to exist as to the forms of the group of plants which were known to the older botanists under the name of *Euphrasia Odontites*, L., is subject to great disadvantage, being chiefly founded upon the examination of dried specimens, from which it is very difficult to determine the true form and structure of the corolla and anthers, the organs from which the most important specific characters are derived. I may observe in the first place, that some of the characters used by authors appear to me altogether fallacious; thus I find the relative length of the floral leaves, and the breadth of the segments of the lower lip of the corolla to vary in all the forms of this group. I proceed to point out by brief diagnostic characters the forms with which I am acquainted.